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EXAMINER	
FRENEL, VANEL	

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ANDREW TROSIEN,
ERIC KUO,
and
ROSS MILLER

Appeal 2009-000806
Application 09/557,382
Technology Center 3600

Decided:[1] June 11, 2009

Before HUBERT C. LORIN, ANTON W. FETTING, and BIBHU R. MOHANTY, *Administrative Patent Judges.*

FETTING, *Administrative Patent Judge.*

DECISION ON APPEAL

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[1]The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, begins to run from the decided date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or Notification Date (electronic delivery).

STATEMENT OF THE CASE

Andrew Trosien, Eric Kuo, and Ross Miller (Appellants) seek review under 35 U.S.C. § 134 of a non-final rejection of claims 1-25, the only claims pending in the application on appeal.

We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b) (2002).

We AFFIRM.

The Appellants invented a dental treatment planning system (Specification Page 2, lines 21-23).

An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced below [bracketed matter and some paragraphing added].

> 1. An dental treatment planning system, comprising:
> [1] an input form to receive one or more dental patient inputs;
> [2] an engine adapted to receive the dental patient data from the input form and
> [3] validating the dental patient data in a predetermined sequence.

This appeal arises from the Examiner's Non-Final Rejection, mailed July 14, 2005. The Appellants filed an Appeal Brief in support of the appeal on September 14, 2005. An Examiner's Answer to the Appeal Brief was mailed on December 11, 2007. A Reply Brief was filed on April 14, 2008.

PRIOR ART

The Examiner relies upon the following prior art:

Andreiko	US 5,683,243	Nov. 4, 1997
Joao	US 6,283,761 B1	Sep. 4, 2001

REJECTION

Claims 1-25 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Joao and Andreiko.

ISSUES

The issue pertinent to this appeal is whether the Appellants have sustained their burden of showing that the Examiner erred in rejecting claims 1-25 under 35 U.S.C. § 103(a) as unpatentable over Joao and Andreiko. The pertinent issue turns on whether Joao and Andreiko describe validating dental patient data in a predetermined sequence.

FACTS PERTINENT TO THE ISSUES

The following enumerated Findings of Fact (FF) are believed to be supported by a preponderance of the evidence.

Facts Related to Claim Construction

01. The disclosure contains no lexicographic definition of "validating [*sic.*]."

02. The ordinary and customary meaning of "validate" is "3) to establish the soundness of.[2]"

Joao

03. Joao is directed to an apparatus and method for processing and providing healthcare information (column 1, lines 15-21 and column 17, lines 25-30).

04. Joao describes an apparatus and method that can be utilized for determining and/or ascertaining a medical diagnosis, verifying and/or checking a diagnosis or treatment, or performing a self-

diagnosis (column 4, lines 33-39). Joao further describes the evaluation and verification of diagnoses, treatments, and any other part of providing healthcare services (column 9, line 58 – column 10, line 2). The verification of a diagnosis requires determining the correctness of that diagnosis (column 24, lines 2-8 and column 25, lines 5-9).

05. Joao implements the apparatus and method over the Internet and/or the World Wide Web (column 15, lines 18-20).

06. Joao describes that a provider will access the central processing computer and input patient information (column 25, lines 11-14). The central processing computer determines whether any medical history for the patient exists and retrieves or requests a medical history for the patient based on that determination (column 25, lines 13-19).

07. Then the patient's symptoms and examination findings are obtained from the patient and transmitted to the central processing computer (column 25, lines 25-30). The central processing computer then processes the patient's symptoms and examination findings in conjunction with the patient's medical history (column 25, lines 30-35).

08. After processing this information, the central processing computer will perform a comprehensive diagnostic evaluation of the patient (column 25, lines 35-38). The central processing computer will output this evaluation into a diagnostic report (column 25, lines 39-41). The report includes a single diagnosis

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[2] *American Heritage Dictionary of the English Language* (4th ed. 2000).

or a list of possible diagnoses, the respective probabilities of occurrence, and the corresponding statistical information (column 25, lines 43-46). The diagnosis may include medical information, textbook materials, laboratory materials, reference materials, video clips, hyperlinks to informational sources, and other relevant information (column 26, lines 11-19).

09. The central processing computer will further generate a treatment report that considers possible drug interactions and/or treatment interactions (column 25, lines 50-53).

10. The central computer then transmits the diagnostic report and treatment report to a medical doctor and the medical doctor can choose a final diagnosis for the patient (column 25, lines 54-62). The doctor transmits the final diagnosis and/or treatment plan to the central processing computer (column 25, lines 63-66). The central processing computer updates the patient's medical record based on the reports (column 25, lines 66-67).

Andreiko

11. Andreiko is directed to the design, manufacture, and use of orthodontic appliances for the straightening of teeth (column 1, lines 24-26).

12. Andreiko describes that a custom orthodontic appliance is fabricated under the control of a computer where data is directly taken from the teeth and/or jaw or a model thereof (column 6, lines 19-23). The appliance is formed by connecting the appliance to the teeth and moving the teeth to precisely calculated finish positions (column 6, lines 22-26). This automated process

ultimately conserves the orthodontist's time and reduces the total time of treatment for the patient (column 6, lines 26-30).

13. Andreiko describes that the orthodontist inputs background information into a computer (column 21, lines 64-67). The orthodontist further inputs tooth/jaw positions and profiles into a computer (column 21, lines 64-67). The input information is in digital form (column 21, lines 50-51).

14. The digital input information is analyzed by a computer to calculate the finish position of the teeth and the appliance is built from this information (column 24, lines 24-29). For each tooth, profile data is taken in separate X-Y coordinates (column 24, lines 13-20). The coordinate planes are reoriented based on the analysis and calculations determined for each tooth (column 24, lines 13-20). The tooth profile information can be generated using computer analysis or interactive computer imaging from three-dimensional images formed with the use of scanners (column 23, lines 48-54).

Facts Related To The Level Of Skill In The Art

15. Neither the Examiner nor the Appellants has addressed the level of ordinary skill in the pertinent art medical treatment planning. We will therefore consider the cited prior art as representative of the level of ordinary skill in the art. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001) ("[T]he absence of specific findings on the level of skill in the art does not give rise to reversible error 'where the prior art itself reflects an appropriate level and a need for testimony is not shown'") (quoting *Litton*

Indus. Prods., Inc. v. Solid State Sys. Corp., 755 F.2d 158, 163 (Fed. Cir. 1985)).

Facts Related To Secondary Considerations

16. There is no evidence on record of secondary considerations of non-obviousness for our consideration.

PRINCIPLES OF LAW

Obviousness

A claimed invention is unpatentable if the differences between it and the prior art are "such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art." 35 U.S.C. § 103(a) (2000); *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007); *Graham v. John Deere Co.*, 383 U.S. 1, 13-14 (1966).

In *Graham*, the Court held that the obviousness analysis is bottomed on several basic factual inquiries: "[(1)] the scope and content of the prior art are to be determined; [(2)] differences between the prior art and the claims at issue are to be ascertained; and [(3)] the level of ordinary skill in the pertinent art resolved." 383 U.S. at 17. *See also KSR*, 550 U.S. at 406. "The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *Id.* at 416.

"When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability." *Id.* at 417.

"For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill." *Id.*

"Under the correct analysis, any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed." *Id.* at 420.

ANALYSIS

Claims 1-25 rejected under 35 U.S.C. § 103(a) as unpatentable over Joao and Andreiko

The Appellants argue these claims as a group.

Accordingly, we select claim 1 as representative of the group. 37 C.F.R. § 41.37(c)(1)(vii) (2008).

The Examiner found that Joao describes limitation [1] of claim 1 but fails to describe limitations [2-3] (Answer Page 3). The Examiner found that Andreiko describes limitations [2-3] (Answer Page 3). The Examiner further found that a person having ordinary skill in the art would have recognized the benefit of having a more precise custom orthodontic appliance which results in conserving an orthodontic's time and would have found it obvious to combine Joao and Andreiko (Answer Page 4).

The Appellants contend that (1) Joao and Andreiko fail to describe limitation [2] of claim 1 (Br. Page 4, last paragraph and Reply Br. Page 5, first paragraph), (2) Joao and Andreiko fail to describe limitation [3] of claim 1 (Br. Page 8, first paragraph and Reply Br. Page 5, first paragraph), (3) Andreiko fails to describe "visualizing patient data in response to a user

request" as per claim 11 (Br. Page 8, first paragraph and Reply Br. Page 6, first paragraph) and (4) there is no motivation to combine Joao and Andreiko (Br. Page 10, second paragraph and Reply Br. Page 7, first paragraph).

The Appellants first contend that (1) Joao and Andreiko fail to describe limitation [2] of claim 1 (Br. Page 4, last paragraph and Reply Br. Page 5, first paragraph). We disagree with the Appellants. First, the Examiner only relied on Andreiko for describing this limitation. As such, the argument that Joao fails to describe this limitation does not persuade us of error on the part of the Examiner because the Appellants respond to the rejection by attacking the references separately, even though the rejection is based on the combined teachings of the references. Nonobviousness cannot be established by attacking the references individually when the rejection is predicated upon a combination of prior art disclosures. *See In re Merck & Co. Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986).

With respect to the contention that Andreiko also fails to describe limitation [2] of claim 1, we also disagree with the Appellants. Limitation [2] requires an engine to receive the dental patient data from the input form. Andreiko describes a computer that receives input data that includes background information and tooth/jaw positions and profiles (FF 13). The background information is patient data and the tooth/jaw positions are specifically dental patient data. The computer is an engine that receives this data as input. As such, Andreiko specifically describes limitation [2] of claim 1.

The Appellants also contend that (2) Joao and Andreiko fail to describe limitation [3] of claim 1 (Br. Page 8, first paragraph and Reply Br. Page 5, first paragraph). We disagree with the Appellants. Limitation [3]

requires validating patient data in a predetermined sequence. The definition of "validate" is to establish the soundness of (FF 02). In the context of the claimed invention, validating patient data is establishing that the patient data is correct and sound. Andreiko describes the processing of input data in specific steps in order to render a precise orthodontic appliance (FF 14). The processing of the input data requires establishing the soundness of the data or a proper orthodontic appliance will not be created. In other words, Andreiko's description of the processing of data inherently requires a preliminary and default validation, at least at the underlying operating system level, and at the admittedly primitive level of continuing of program execution without crashing. The Appellants have not narrowed the validation mechanism claimed other than there being an occurrence in a predetermined sequence, allowing any such mechanism to describe this limitation. Ordinary serial program execution is an example of such a predetermined sequence. As such, Andreiko describes limitation [3].

Furthermore, Joao explicitly describes validating, verifying, and evaluating different parts of healthcare services that are provided (FF 04). Joao describes evaluating the steps of diagnosis, treatments, treatment plans, and any other healthcare service (FF 04). Joao further describes that the diagnosis step is performed prior to the treatment and treatment planning steps (FF 08 and FF 09). That is, each step of the provided healthcare service is evaluated and validated in a pre-determined order. Although the data Joao validates are not necessarily the input data, limitation [3] does not specify the input data, but merely requires validation of dental patient data. As such, Joao also describes limitation [3] of claim 1.

The Appellants further contend that (3) Andreiko fails to describe "visualizing patient data in response to a user request" as per claim 11 (Br. Page 8, first paragraph and Reply Br. Page 6, first paragraph). We disagree with the Appellants. Andreiko explicitly describes generating tooth profile information from three-dimensional images and scanners produce the three dimensional images (FF 14). The Appellants acknowledge this description of Andreiko (Br. Page 8, second paragraph) and fail to provide any further information as to the Examiner's error in finding that Andreiko describes this limitation. As such, this argument does not satisfy the Appellants' burden of showing the Examiner erred.

The Appellants additionally contend that (4) there is no motivation to combine Joao and Andreiko (Br. Page 10, second paragraph and Reply Br. Page 7, first paragraph). We disagree with the Appellants. Joao is concerned with ascertaining an accurate medical diagnosis and preparing an accurate treatment plan from the diagnosis (FF 04 and FF 09). Joao accomplishes this by verifying and checking a diagnosis or treatment plan (FF 04). Andreiko is also concerned with increasing the accuracy of a dental treatment and conserving an orthodontist's time (FF 12). Andreiko accomplishes this goal by digitally accepting data inputs from a patient and directly producing a custom built appliance using a computer (FF 12). One of ordinary skill in the art would have recognized these benefits of Joao and Andreiko and been motivated to combine the teachings of Joao and Andreiko in order to provide an accurate diagnosis and treatment plan while conserving time and costs. As such, Joao and Andreiko are concerned with the same problem and one of ordinary skill in the art would have been lead to combine their teachings.

CONCLUSIONS OF LAW

The Appellants have not sustained their burden of showing that the Examiner erred in rejecting claims 1-25 under 35 U.S.C. § 103(a) as unpatentable over Joao and Andreiko.

DECISION

To summarize, our decision is as follows:

- The rejection of claims 1-25 under 35 U.S.C. § 103(a) as unpatentable over Joao and Andreiko is sustained.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv) (2007).

AFFIRMED

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